To: CN=Jennifer Orme-

Zavaleta/OU=RTP/O=USEPA/C=US@EPA;vandenberg.john@epa.gov;CN=Cynthia Sonich-Mullin/OU=CI/O=USEPA/C=US@EPA;CN=Christopher Impellitteri/OU=CI/O=USEPA/C=US@EPA[]; andenberg.john@epa.gov;CN=Cynthia Sonich-Mullin/OU=CI/O=USEPA/C=US@EPA;CN=Christopher Impellitteri/OU=CI/O=USEPA/C=US@EPA[]; N=Cynthia Sonich-

 $\label{eq:mullin/OU=CI/O=USEPA/C=US@EPA;CN=Christopher Impellitteri/OU=CI/O=USEPA/C=US@EPA[]; \\$

N=Christopher Impellitteri/OU=CI/O=USEPA/C=US@EPA[]

Cc: CN=Jeanne Briskin/OU=DC/O=USEPA/C=US@EPA;CN=Dayna

 ${\tt Gibbons/OU=DC/O=USEPA/C=US@EPA;CN=Jose\ Zambrana/OU=DC/O=USEPA/C=US@EPA[];}$

N=Dayna Gibbons/OU=DC/O=USEPA/C=US@EPA;CN=Jose

Zambrana/OU=DC/O=USEPA/C=US@EPA[]; N=Jose Zambrana/OU=DC/O=USEPA/C=US@EPA[]

From: CN=Lisa Matthews/OU=DC/O=USEPA/C=US

Sent: Tue 10/30/2012 8:24:15 PM **Subject:** HF press - for your info

http://www.usnews.com/opinion/blogs/on-energy/2012/10/17/on-fracking-epa-must-be-

transparent?s_cid=rss%3aon-energy%3aon-fracking-epa-must-be-transparent

ot First, Ask Questions Later' Attack on Fracking

THOMAS PYLE
a draft report
sent a letter

See a collection of political cartoons on energy policy

Geological Survey refused to take samples

dropped its 15-month long groundwater contamination case

one of the Texas state regulators said at the time Read the U.S. News Debate: Is Fracking a Good Idea?

the water was safe

one formed by actor Mark Ruffalo

at least a century (embedded image)

From: James O'Hara/DC/USEPA/US

To: Bob Sussman/DC/USEPA/US@EPA, Janet Woodka/DC/USEPA/US@EPA

Date: 10/18/2012 12:58 PM

Subject: Fw: API Release on Pavillion

fvi

---- Forwarded by James O'Hara/DC/USEPA/US on 10/18/2012 12:57 PM -----

From: David Bloomgren/DC/USEPA/US
To: James O'Hara/DC/USEPA/US@EPA

Date: 10/18/2012 12:57 PM

Subject: API Release on Pavillion

NEWS

FOR IMMEDIATE RELEASE October 18, 2012 Bill Bush | 202.682.8114 | bushw@api.org

New USGS tests cast doubt on EPA water quality testing at Pavillion, Wyoming

WASHINGTON, October 18, 2012 - API Director of Upstream Erik Milito told reporters this morning that

results from recent USGS water quality testing in EPA monitoring wells at Pavillion, Wyoming raise serious questions about the adequacy of EPA practices in drilling monitoring wells and testing water samples. He said apparent EPA failures to follow sound scientific practices at Pavillion also raise concerns about the testing it is now doing in its national study on potential impacts of hydraulic fracturing on drinking water resources:

"EPA's water quality investigation at Pavillion, Wyoming, adds to our concerns about similar testing it is conducting in its national study. Unscientific testing could produce flawed results that could result in major adverse impacts on shale energy development and the vast potential it has to contribute to U.S. jobs, U.S. economic recovery and U.S. energy security.

"We've looked closely at what the USGS did and at its data. The USGS did a better job. Unlike EPA, it chose not to test samples from one of the two wells that EPA drilled because that well was unable to provide representative samples due to its low-flow characteristics. Again, in the well from which the USGS did draw samples, it found that the samples did not contain several compounds of interest previously identified by EPA. In addition, while EPA has yet to acknowledge this, hydrocarbons are naturally occurring and have historically been detected in groundwater in the Pavillion area. It is not unexpected to find hydrocarbons in groundwater in a hydrocarbon-bearing formation.

"The Pavillion analysis is critically important because EPA – as part of its separate nationwide study into potential drinking water impacts – is also drilling monitoring wells and collecting and analyzing samples in other places. If EPA thinks its investigation at Pavillion has produced scientifically useful information, then it may proceed in the same inexpert way at other testing sites, assume it is getting additional useful information, and employ that information to justify changes in public policy.

"The shale revolution is changing the face of American energy development. It's boosting domestic oil and natural gas production, putting hundreds of thousands of people to work, and delivering added billions in revenue to state and federal governments. It's also strengthening our nation's energy security and reducing our trade deficit. But it could do even more, provided the federal government does not create regulatory obstacles based on flawed research."

API is a national trade association that represents all segments of America's technology-driven oil and natural gas industry. Its more than 500 members – including large integrated companies, exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms – provide most of the nation's energy. The industry also supports 9.2 million U.S. jobs and 7.7 percent of the U.S. economy, delivers \$86 million a day in revenue to our government, and, since 2000, has invested over \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

David E. Bloomgren U.S. Environmental Protection Agency

Direct: 202.564.0639 Mobile: 202.604.5926

----- Forwarded by Jose Zambrana/DC/USEPA/US on 10/23/2012 03:45 PM -----

From: Jose Zambrana/DC/USEPA/US
To: Gary Foley/RTP/USEPA/US@EPA

Date: 10/19/2012 11:14 AM

Subject: Fw: US News article on fracking

And the second

José L. Zambrana, Jr., Ph.D., Physical Scientist

Special Assistant NEJAC Research Workgroup, DFO Office of Research & Development (ORD)

202-564-5192 (office) 202-779-1416 (cell)

---- Forwarded by Jose Zambrana/DC/USEPA/US on 10/19/2012 11:13 AM -----

From: Ramona Trovato/DC/USEPA/US
To: Jose Zambrana/DC/USEPA/US@EPA

Date: 10/19/2012 11:13 AM

Subject: Fw: US News article on fracking

Sent by: Jose Zambrana

---- Forwarded by Jose Zambrana/DC/USEPA/US on 10/19/2012 11:13 AM -----

From: Bob Sussman/DC/USEPA/US

To: Bob Perciasepe/DC/USEPA/US@EPA, Janet Woodka/DC/USEPA/US@EPA, Ramona Trovato/DC/USEPA/US@EPA,

Glenn Paulson/DC/USEPA/US@EPA, Jim Martin/R8/USEPA/US@EPA, James O'Hara/DC/USEPA/US@EPA

Date: 10/18/2012 06:21 PM

Subject: Fw: US News article on fracking

More attacks on new Pavillion data.

From: Moira McGuinness/DC/USEPA/US

To: Elizabeth Blackburn/DC/USEPA/US@EPA

Date: 10/18/2012 02:41 PM

Subject: Re: US News article on fracking

http://www.usnews.com/opinion/blogs/on-energy/2012/10/17/on-fracking-epa-must-be-transparent?s_cid=rss%3aon-energy%3aon-fracking-epa-must-be-transparent

Shoot First, Ask Questions Later' Attack on Fracking

By THOMAS PYLE

October 17, 2012

Thomas J. Pyle is the president of the Institute for Energy Research.

The U.S. Environmental Protection Agency announced recently that the latest test results from groundwater in the Pavillion, Wyo. area are "generally consistent" with test results from late last year that showed possible contamination from hydraulic fracturing. The methods EPA used to conduct these tests have come under scrutiny, however, and the agency's recent issues with the "shoot first, ask questions later" approach should warrant additional caution about the conclusiveness of its findings in Wyoming. According to a draft report released by EPA in December 2011, the agency's tests of two groundwater monitoring wells the agency installed in the Pavillion area in 2010 indicated "likely impact to ground water that can be explained by hydraulic fracturing." However, concerns about the testing methods and findings of the report, which EPA released hastily without peer review, were numerous. In one instance, the Wyoming State Director for the U.S. Bureau of Land Management sent a letter calling EPA's groundwater sampling "not statistically valid" and said the findings were premature. Additionally, state regulators in Wyoming expressed reservations about EPA's testing procedures, and requested an independent review from the U.S. Geological Survey. As such, EPA has delayed making a final determination about Pavillion pending a more thorough review of the data, and retesting by the Geological Survey.

[See a collection of political cartoons on energy policy.]

Although EPA has yet to make all of its latest retest data available, issues with the reliability of its procedures have already surfaced. According to the U.S. Geological Survey's report on Pavillion—which EPA claimed supports its own findings—the Geological Survey refused to take samples from one of the two monitoring wells (MW-02) because the water flow rate was inadequate for sampling. Moreover, the Geological Survey failed to detect several compounds in its samples that EPA's report documented, and a down-hole camera used by the Wyoming Department of Environmental Quality showed several problems with the construction of one of the monitoring wells. These are just a few of the inconsistencies and methodological errors that call into question the reliability of EPA's data, and they will need to be accounted for if EPA eventually follows through

on its commitment to have the report peer reviewed.

While the EPA's plans for Pavillion remain in limbo, it is abundantly clear that something needs to be done about the agency's unfortunate tendency to shoot first and ask questions later. Pavillion is the third instance where EPA has attempted to prove that hydraulic fracturing contaminates groundwater, only to have their science questioned or their claims refuted entirely by tests. In Parker County, Texas, EPAdropped its 15-month long groundwater contamination case against a natural gas operator over elevated levels of methane in the water; EPA was unable to prove that the presence of methane was due to drilling in the area. As one of the Texas state regulators said at the time, "By dropping their court case and enforcement actions, EPA now acknowledges what we at the Railroad Commission have known for more than a year: Range Resources' Parker County gas wells did not contaminate groundwater."

[Read the U.S. News Debate: Is Fracking a Good Idea?]

In another instance, EPA was concerned that hydraulic fracturing may have contaminated drinking water in Dimock, Pa. But after a repeat round of tests, EPA said that the water was safe.

In bypassing state regulators and making public announcements about what they think may be true—but often isn't—EPA is giving fodder to people who want to stop hydraulic fracturing and the natural gas it produces at all costs. The anti-hydraulic fracturing HBO documentaryGasland featured both Dimock and Parker County, as well as an interview with the former EPA Region 6 administrator who resigned in disgrace, Al Armendariz. And as the saying goes, even if EPA retracts its claims, it can't un-ring a bell—environmental groups like the one formed by actor Mark Ruffalo still maintain the water in these places is contaminated. Going forward, it is critical that EPA be held to a higher standard for scientific rigor and transparency—the stakes are too high. The energy renaissance made possible by hydraulic fracturing has made the United States the world's largest producer of natural gas and helped increase U.S. oil production. This has meant lower natural gas prices, more job opportunities, and more economic growth. Moreover, with the advent of newly accessible shale gas supplies, we now have enough natural gas to last for at least a century at today's rates of consumption. The importance of safe hydraulic fracturing to America's energy future cannot be understated, and we cannot allow it to be jeopardized by sloppy, unsound science.

Thanks, Moira

Moira McGuinness
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"We can't solve problems by using the same kind of thinking we used when we created them."

Albert Einstein

From: Elizabeth Blackburn/DC/USEPA/US

To: "Moira McGuinness" < McGuinness. Moira@epamail.epa.gov>

Date: 10/18/2012 02:37 PM

Subject: Re:

Can you please find and send me the opinion piece on fracking that is in US News and World Report.

Thanks

Liz Blackburn USEPA, Office of Research and Development 202-564-2192 Cell 202-436-2453 ---- Forwarded by Jose Zambrana/DC/USEPA/US on 10/23/2012 03:45 PM -----

From: Jose Zambrana/DC/USEPA/US
To: Gary Foley/RTP/USEPA/US@EPA

Date: 10/19/2012 11:14 AM

Subject: Fw: Greenwire - Industry slams EPA for 'flawed' Pavillion method

And now today's

José L. Zambrana, Jr., Ph.D., Physical Scientist

Special Assistant
NEJAC Research Workgroup, DFO
Office of Research & Development (ORD)

202-564-5192 (office) 202-779-1416 (cell)

---- Forwarded by Jose Zambrana/DC/USEPA/US on 10/19/2012 11:14 AM -----

From: Elizabeth Blackburn/DC/USEPA/US

To: "Ramona Trovato" <trovato.ramona@epa.gov>, "Dr. Jose Zambrana" <Zambrana.Jose@epamail.epa.gov>, "Dayna

Gibbons" <gibbons.dayna@epa.gov>, "Cindy Sonich-Mullin" <sonich-mullin.cynthia@epa.gov>

Date: 10/19/2012 09:43 AM

Subject: Greenwire - Industry slams EPA for 'flawed' Pavillion method

Don't know this reporter. Greenwire is usually pretty balanced so this is unfortunate.

Industry slams EPA for 'flawed' Pavillion method

Ellen M. Gilmer, E&E reporter

Published: Friday, October 19, 2012

The oil and gas industry's top trade group has joined in the scramble to interpret new data in an ongoing investigation of groundwater contamination and hydraulic fracturing near Pavillion, Wyo.

The American Petroleum Institute's upstream director, Erik Milito, said yesterday that groundwater testing from the U.S. Geological Survey (USGS) is inconsistent with results previously released by U.S. EPA, and that the discrepancy is a signal of flawed EPA practices.

"EPA did not follow a transparent, peer-reviewed process that might have helped guide the agency in the use of proven and tested scientific practices," Milito said in a call with reporters.

Per an agreement with Wyoming officials, USGS released the groundwater testing data last month with no analysis. EPA said the results confirmed that fracking had contaminated groundwater in the Pavillion area, a claim that was promptly disputed by Encana Corp., whose drilling is the subject of the investigation.

The agency announced last week that it was extending the public comment period on the findings to Jan. 15, which will be followed by a peer-review meeting.

The trouble began in 2005, when homeowners near the oil field began complaining about spoiled water. EPA drilled two monitoring wells to investigate and announced last year that it had found frack fluid not in drinking water, but in deep groundwater.

But when USGS tried to sample the same two monitoring wells, it could not get data from one because of low flow rates; the agency's "standard practice" is to avoid sampling from low-flow wells. That was MW02, the well where EPA had found high levels of benzene last year (EnergyWire, Oct. 12).

EPA defended its own use of the low-flow well, saying last week that such wells simply require different sampling methods. In the better-functioning well, MW01, USGS did not find xylene, isopropanol, acetone and some other compounds EPA had reported finding in the monitoring well.

Broader impact

API's Milito took criticism of EPA a step further by saying EPA's handling of the Pavillion investigation cast doubt on a nationwide study of fracking's impact on the environment.

"If EPA thinks its investigation at Pavillion has produced scientifically useful information," he said, "then it may proceed in the same inexpert way at other testing sites, assume it is getting additional useful information and employ that information to justify changes in public policy."

Milito said the Pavillion study was important because its results would help shape public opinion of oil and gas development.

"The industry understands that it must do things right," he said. "We do not object to EPA studying the issue, but a bad study could be counterproductive."

In an emailed statement yesterday, EPA maintained its stance that the new data are "generally consistent" with the monitoring data from last year.

Liz Blackburn USEPA, Office of Research and Development 202-564-2192 Cell 202-436-2453